MONTHLY WEATHER REVIEW,

MAY, 1878.

WAR DEPARTMENT,

Office of the Chief Signal Officer,

DIVISION OF

TELEGRAMS AND REPORTS FOR THE BENEFIT OF COMMERCE AND AGRICULTURE.

INTRODUCTION.

In compiling the present REVIEW the following data, received up to June 14th, have been made use of, viz: the regular tri-daily weather charts, containing the data of simultaneous observations taken at one hundred and forty Signal Service stations and fourteen Canadian stations; monthly journals and means from one hundred and thirty-six of the former, and monthly means from thirteen of the latter; reports from twenty-five Special Sunset stations; two hundred and twenty-two reports from Voluntary Observers; thirty-one monthly reports from United States Army Post Surgeons; Marine Records; International Simultaneous Reports; monthly reports of the Weather Services of the States of Iowa and Missouri; reliable newspaper extracts and special reports. The most interesting features of the month have been: the return to normal temperatures east of the Rocky Mountains; the number and severity of tornadoes and thunder and hail-storms; and the heavy rain-falls along the eastern slope from Dakota to northern Texas and Arkansas.

BAROMETRIC PRESSURE.

In General.—On chart No. II is shown the general distribution of atmospheric pressure by the isobaric lines. Compared with the means of previous years, the pressure for the present month is slightly below normal, the deficiency being greatest over New England, where it averages about 0.05 of an inch.

Barometric Ranges.—These have been somewhat smaller than usual, and vary as follows: In New England, the greatest range was 0.86 in. at Eastport, and smallest, 0.75 at Springfield; Mt. Washington, 0.76. Middle States, 0.74 at Albany and New York, and 0.51 at Lynchburg. South Atlantic States, 0.67 at Cape Hatteras, and 0.38 at Tybee Island. Eastern Gulf States, 0.39 at St. Marks and 0.25 at Key West. Western Gulf States, 0.65 at Corsicana and 0.37 at New Orleans. Ohio valley and Tennessee, 0.67 at Pittsburg and 0.42 at Knoxville. Lake region, 0.87 at Alpena, 0.63 at Oswego. Upper Mississippi valley, 0.79 at St. Paul, 0.61 at St. Louis. Missouri valley, 1.06 at Yankton, 0.80 at Bismarck. Plains of Kansas and Nebraska (where the largest ranges occurred), 1.19 at Dodge City, and 1.05 at North Platte. Rocky Mountains and Western Plateau, 0.83 at Salt Lake City, and 0.57 at Santa Fé; Pike's Peak, 0.55. Pacific coast, 0.46 at San Francisco, and 0.28 at Los Angeles.

Areas of High Pressure in General.—Of these six have been sufficiently well marked to warrant description. No. II was attended by severe frosts from the 11th to the 14th.

No. I—appeared during the 1st on the coast of Oregon and Washington Territory; 11 p. m. barometer at Portland, Or., 30.35, or 0.28 above the normal, with cool northerly winds prevailing thence to Nevada and Utah; light snow and a SW. gale on the summit of Pikes Peak, with a temperature of 10°. 2d, a. m. barometer at Portland, 30.44, or 0.32 above normal; 11 p. m. barometer at Salt Lake City, 30.18, or 0.32 above normal; cool and clear weather prevailed throughout this region during the day, the minimum temperature at Boise City being 29°; at Winnemucca 31°, and Cheyenne 30°. A heavy NW. snow-storm also prevailed, during latter part of day, from Dakota to Manitoba, severe squalls being reported in the valley of the Red River of the North. 3d, a. m. barometer at Salt Lake City, 30.24, or 0.36 above normal, where the maximum pressure remained throughout the day; a. m. minimum temperatures, Virginia City and Cheyenne, 28°; Bismarck, 27°, and Pembina and Ft. Garry 26°; the NW. snow-storm in the Northwest con-